



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/845,104

04/30/2001

Gavan Tredoux

A0840

1617

7590

08/28/2006

Patent Documentation Center

Xerox Corporation

Xerox Square 20th Floor

100 Clinton Ave. S.

Rochester, NY 14644

EXAMINER

BLAIR, DOUGLAS B

ART UNIT

PAPER NUMBER

2142

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/845,104

Applicant(s)

TREDOUX ET AL

Examiner

Douglas B. Blair

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-16 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-16 and 18-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_


## **DETAILED ACTION**

### ***Response to Amendment***

1. Claims 9-16 and 18-23 are currently pending in this application.
2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. The examiner inadvertently did not provide any rationale in the previous office action for the rejection of claim 22. Also in light of the new patent US 7,028,051 a new rejection based on 35 USC 103 is now presented.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-10, 13-15, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,007,093 to Spicer et al. in view of U.S. Patent Number 7,028,051 to McMullan et al..

5. As to claim 9, Spicer teaches a method of accessing an internal network device on a protected network, the network including a security device, the method comprising: storing data addressed to the internal network device in an external proxy server (col. 4, lines 4-24, the Proxy Server 114 stores data addressed to the Network Resources 104.); maintaining a proxy agent on the protected network, the proxy agent executing the step of: polling the external proxy server for

Art Unit: 2142

data addressed to the internal network device, where polling includes: connecting to the external proxy server to check for pending traffic (col. 4, lines 4-24, the Polling Server 116 polls the Proxy Server 114); receiving from the external proxy server when the external proxy server has received data from a client (col. 4, lines 4-24, Polling Server receives client request for Network Resources 104); forwarding to the internal network device any data on the external proxy server and addressed to the internal network device; and forwarding to the external proxy server any data addressed to an external device in communication with the external proxy server (col. 4, lines 4-24, the Network Resources 104 are disclosed as being printers and file servers and other similar devices which inherently send responses); however Spicer does not explicitly teach the external proxy server sending a stream of spurious bytes if there is nothing pending for the internal network device.

McMullan teaches a method of receiving a stream of spurious bytes from a proxy server if there is nothing pending for the network device (col. 9, lines 1-46, the keepalive function sends spurious bytes to maintain the connection).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of Spicer regarding communication through a private network with the teachings of McMullan regarding the transmission of spurious bytes because spurious bytes keep communication channels open and thus reduce latency that would be required to establish a connection (McMullan, col. 9, lines 47-59).

6. As to claim 10, Spicer teaches a method of polling the external server at regular intervals (col. 4, lines 4-24).

Art Unit: 2142

7. As to claim 13, McMullan teaches a method of multiplexing multiple requests from the proxy agent to proxy server through the same connection (col. 9, lines 29-46).

8. As to claim 14, Spicer teaches a method of maintaining by the proxy server maps between local TCP/IP ports of the proxy server and private IP addresses on the protected network, the maps being distinguished by an identity of the proxy agent used to access them (col. 4, lines 4-44).

9. As to claim 15, Spicer teaches a method of publishing by each proxy agent a list of addresses it can reach to the external proxy server, the external proxy server using this list to create a respective map between local ports and proxy agents (col. 4, line 55-col. 5, line 15).

10. As to claim 20, Spicer teaches a method of providing network administrators control over the system including granting administrators the ability to allow and deny entry into the protected network on a per session basis (col. 4, line 55-col. 5, line 15).

11. As to claim 22, Spicer teaches a method of providing a network administrator control over the system including granting administrators the ability to allow and deny entry into the protected network on a per session basis (col. 8, lines 39-58).

12. Claim 11-12, 16, 20-21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,007,093 to Spicer et al. in view of U.S. Patent Number 7,028,051 to McMullan et al. in further view of U.S. Patent Number 6,510,464 to Grantges Jr. et al..

13. As to claim 11, the Spicer-McMullan combination does not explicitly teach the use of two separate protocols to inside and outside the private network.

Art Unit: 2142

Grantges Jr. teaches a method of communicating by an internal network device with a proxy using a first network protocol and an external network device communicating with the proxy using a second protocol (Figure 7).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Spicer-McMullan combination regarding communication to devices on a private network with the teachings of Grantges, Jr. regarding the use of different protocols inside and outside of the private network because some connections may be required to be secure.

14. As to claim 12, Grantges Jr. teaches a method wherein data addressed to an internal network device using a second network protocol is transmitted to the internal device using the first protocol so that the second protocol is carried to the internal network device inside the first network protocol (HTTP traffic is encrypted using HTTPS).

15. As to claim 16, the Spicer-McMullan combination does not explicitly teach ensuring cookie delivery.

Grantges, Jr. teaches a proxy server that ensures proper cookie routing (col. 11, line 63-col. 12, line 10).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Spicer-McMullan combination regarding a system for communicating with private network devices with the teachings of Grantges, Jr. regarding the routing of cookies because cookies are commonly communicated during HTTP communication.

16. As to claim 18 and 19, they are rejected for the same reason as claims 11 and 12.

Art Unit: 2142

17. As to claim 20, Grantges Jr. teaches the use of X.509 certificates (Fig 7).

18. As to claim 21, the Spicer-McMullan combination teaches the method of claim 9 however the Spicer-McMullan combination does not explicitly teach rewriting cookies with unique identifiers.

Grantges Jr. teaches rewriting cookies with unique identifiers to prevent inadvertent transmission of private information to an incorrect recipient on the protected network (col. 9, line 54-col. 10, line 5).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Spicer-McMullan combination regarding a system for communicating with private network devices with the teachings of Grantges, Jr. regarding the routing of cookies because cookies are commonly communicated during HTTP communication.

19. As to claim 23, the Spicer-McMullan combination teaches the method of claim 9 however the Spicer-McMullan combination does not explicitly teach granting a key for access.

Grantges teaches a method wherein access is conferred by granting a key with a predetermined life span (col. 7, lines 63-col. 8, line 14).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Spicer-McMullan combination regarding a system for communicating with private network devices with the teachings of Grantges, Jr. regarding granting a key because keys are commonly used to identify requesters.

***Response to Arguments***

Art Unit: 2142

20. Applicant's arguments with respect to claims 9-16 and 18-23 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas B. Blair whose telephone number is 571-272-3893. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Douglas Blair



ANDREW CALDWELL  
SENIOR PATENT EXAMINER